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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,637	04/16/2004	Dale A. Grove	25319A	1433
22889	7590	10/06/2006		
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			EXAMINER RUDDOCK, ULA CORINNA	
			ART UNIT	PAPER NUMBER

1771

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/826,637	Applicant(s) GROVE ET AL.	
	Examiner Ula C. Ruddock	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,8-12,15-28,51-58 and 60-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,8-12,15-28,51-58 and 60-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Examiner has carefully considered Applicant's amendments and accompanying response filed July 21, 2006. The 112, 1st paragraph rejection has been overcome. In view of Applicant's amendments, additional prior art has been found and will be combined with the previously set forth prior art to render the invention, as currently claimed, unpatentable.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1, 8-12, 15-20, 21, 23-28, and 51-58, 60-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 2005/0202742) in view of Smith et al. (US 2002/0151240). Smith et al. disclose a pre-coated mat for preparing gypsum board. The board comprises a set gypsum core sandwiched between and faced with mats of glass fibers (abstract). The mat is formed of chopped nonwoven glass strands and is bound together with a resin binder, typically a urea-formaldehyde resin adhesive [0037]. This binder equates to Applicant's first binder resin. The glass fibers are typically wet-formed [0029-0030]. The coating composition comprises a polymer latex adhesive, an inorganic adhesive binder, and mineral pigments [0042]. Examples of polymer latex binder include styrene-butadiene-rubber [0046]. The polymeric binder is present in the amount of at least about 1% and no more than about 17% by weight [0042]. The inorganic binder comprises compounds such as calcium oxide, calcium silicate, calcium sulfate, magnesium oxychloride, magnesium oxysulfate, or aluminum hydroxide [0052]. The filler can be clay, sand, or calcium carbonate [0044]. The filler is present in an amount of 75-99% [0043]. **Applicant also**

discloses that it is well known to have 20-65% filler in a coating on a fibrous mat-faced gypsum board [0011-0012]. Applicant has added the limitation that the “reinforcing agent be selected from the group consisting of acicular man made fibers and fibrous reinforcement agents.” Because Applicant has defined mica has a preferred reinforcing agent in claim 15 and because Smith et al. discloses the use of mica [0044], the newly added limitation has been met. Smith et al. discloses the invention except for the teaching that the mat is a mesh and that a coated secondary reinforcing glass fabric is layered onto the mesh.

Smith et al. (US 2002/0151240) disclose a composite facer for wallboard comprising a glass scrim reinforcement [0015] bonded to a glass nonwoven mat [0017]. The nonwoven mat can also comprise olefin fibers [0017]. The scrim can also comprise polyester or polyolefin fibers [0018]. The two layers are bonded together using an acrylic adhesive [0015]. The adhesive material with bond the yarns of the reinforcement fabric together. It should be noted that the examiner is equating the acrylic adhesive of Smith to the coating on the veil of the present invention. It would have been obvious to have used Smith's teaching of a glass mesh in place of the fiberglass mat of Smith et al., motivated by the desire to create a gypsum facing material that is strong yet lightweight. It also would have been obvious to have used Smith's teaching of an acrylic-coated glass mat in addition to the fibrous material of Smith et al, motivated by the desire to create a gypsum facing material that has increased structural integrity.

Regarding claims 23, 25, 26, and 68, it is the Examiner's position that these claims are disclosing method limitations. It has been held that the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, these limitations have not been

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given patentable weight. Additionally, the introduction of the high aspect ratio particles to the first binder resin prior to the introduction of the secondary binder resin, would not result in a change of the final product.

4. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 2005/0202742) and Smith et al. (US 2002/151240), as applied to claim 1 above, and further in view of Murphy et al. (US 6,176,920) or Porter et al. (US 2005/0009428). Smith et al. and Smith et al. disclose the claimed invention except for the teaching that the binder resin further comprises a thermosetting resin and a crosslinking agent.

Murphy et al. (US 6,176,920) disclose a cementitious structural panel comprising a fiberglass mesh (col 3, ln 54). A coating composition is used and includes crosslinking agents (col 8, ln 14-25). Porter et al. (US 2005/0009428) disclose fabric reinforcement and cementitious boards faced with the same. The fabrics can be a non-woven mesh [0108] coated with binder compositions that include a thermoset resin [0091]. It would have been obvious to one having ordinary skill in the art to have used Murphy's teaching of a crosslinking agent and Porter's teaching of a thermosetting resin in the gypsum facing panel of Smith et al. and Smith et al., motivated by the desire to create a gypsum board that has increased weatherability and durability.

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al. (US 2005/0202742) and Smith et al. (US 2002/151240) as applied to claim 1 above, and further in view of Brown et al. (US 4,394,414). Smith et al. and Smith et al. disclose the claimed invention except for the teaching that the chopped glass strands include a sizing composition.

Brown et al. (US 4,394,414) disclose an aqueous sizing composition for glass fibers for use on chopped glass fibers. The sized wet chopped glass fiber strands have good flowability and when used to produce non-woven glass fiber strand mat, provides a mat with good flexibility and tensile strength (abstract). It would have been obvious to one having ordinary skill in the art to have used Brown's sizing composition on the chopped glass strands of Smith et al. and Smith et al., motivated by the desire to create a mat that has good flexibility and tensile strength.

Response to Arguments

6. Applicant's arguments filed July 21, 2006, have been fully considered but they are not persuasive for the reasons set forth. Applicant argues that there is no teaching or suggestion of acicular man made fibers or fibrous reinforcing agents within Smith 2005. This argument is not persuasive because Applicant has included mica among their preferred reinforcing agents in claims 15, 55, and 65. Smith discloses the use of mica in [0044]. Therefore, this limitation has been met and the rejections have been maintained.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

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calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is 571-272-1481. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UCR *UCR*

Ula Ruddock
Ula C. Ruddock
Primary Examiner
Tech Center 1700